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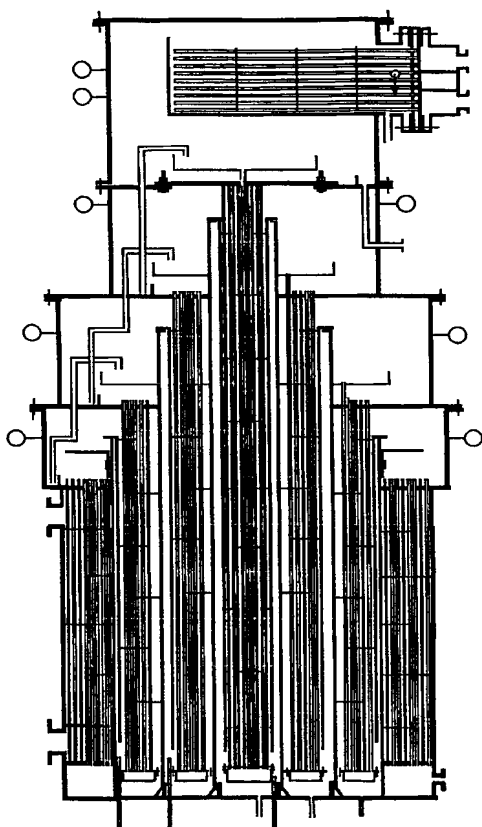
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(54) Title: **DESALINATION MACHINE**



(57) **Abstract:** A compact and economical array of vertical tube evaporators is disclosed in a multi-effect process, for desalination of sea water, brackish water, and in general to any water with dissolved solids, in order to produce fresh water for oil offshore platforms, ships, and for some arid locations, using rejected waste heat of thermal machines. This invention is based on a concentric disposition of the evaporators or stages, having three different specially designed evaporators, which the first stage is a shell and tube evaporator built in a ring format, named Ring Shell And Tube Evaporator, including an internal shell, and having a vapour chamber above its upper tubesheet; the intermediate stage is a bundle of tubes in a ring format named Ring Bundle Evaporator, having a vapour chamber above its upper tubesheet; and the last stage that is a bundle of tubes in a circular arrangement named Cylindrical Bundle Evaporator.